



# Australian Bureau of Statistics

## 6227.0 - Education and Work, Australia, May 2007

Previous ISSUE Released at 11:30 AM (CANBERRA TIME) 18/12/2007

## Summary

### Main Features

#### NOTES

**30/07/2008:** Two additional data cubes were added. See Data Cube 6 (I-Note) and Data Cube 7 (I-Note)

**18/07/2008:** An additional data cube was added. See Data Cube 5 (I-Note)

**18/07/2008:** The additional material data cube released on 15 May 2008 was reissued in order to correct an error in the Relative Standard Errors provided for 2001-2003. Other parts of the publication are not affected.

**16/07/2008:** Two additional data cubes were added. See Data Cube 3 (I-Note) and Data Cube 4 (I-Note).

**12/05/2008:** An additional data cube was added that provides data in Excel spreadsheets for Persons with a qualification at AQF Certificate III level or above, by State/Territory of Residence, Sex and age group. Includes data for 2001-2007.

**15/05/2008:** The additional data cube added on 12/05/2008 was reissued in order to correct an error in the Proportion of persons for 2005 and formatting of each spreadsheet for printing. Other parts of the publication are not affected.

#### ABOUT THIS PUBLICATION

This publication presents information about the educational experience of persons aged 15-64 years, especially in relation to their labour force status.

Statistics in this publication were collected in May 2007 as a supplement to the Australian Bureau of Statistics' (ABS) monthly Labour Force Survey (LFS).

Information collected in the survey includes: participation in education in the year prior to the survey, and in the survey month; labour force characteristics; type of educational institution; level of education of current and previous study; highest year of school completed; level of highest non-school qualification; level of highest educational attainment; unmet demand for education in current year; and selected characteristics of apprentices.

Unless otherwise specified, differences between data items highlighted in the Summary of Findings are statistically significant.

This publication includes Data Cubes in spreadsheet format available on the ABS web site <www.abs.gov.au>. An expanded range of statistics in spreadsheet format will supplement this publication and will also be available on the ABS web site <www.abs.gov.au> at a later date.

## CLASSIFICATION OF EDUCATION

The **Australian Standard Classification of Education (ASCED)** (cat. no. 1272.0) was introduced into ABS collections in 2001. It replaces a number of education classifications used prior to 2001 for data from the various sectors of the Australian education system, including the **Australian Bureau of Statistics Classification of Qualifications (ABSCQ)** (cat. no. 1262.0) ASCED comprises two classifications: Level of Education and Field of Education. For further details, see paragraphs 21-26 of the Explanatory Notes.

## CLASSIFICATION OF INDUSTRY

From 2006, industry data are classified according to **Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006** (cat. no. 1292.0) This new classification replaces the **Australian and New Zealand Standard Industrial Classification, 1993** (cat. no. 1292.0). For further details, see paragraphs 15-17 of the Explanatory Notes.

## CLASSIFICATION OF OCCUPATION

From 2006, occupation data are classified according to the **Australian and New Zealand Standard Classification of Occupations (ANZSCO), First edition, 2006** (cat. no. 1220.0). This new classification replaces the **Australian Standard Classifications of Occupations (ASCO), Second Edition, 1997** (cat. no. 1220.0). For further details, see paragraphs 18-20 of the Explanatory Notes.

## ROUNDING

As estimates have been rounded, discrepancies may occur between sums of the component items and totals.

## INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

## SUMMARY COMMENTARY

## PARTICIPATION

In May 2007, there were 13.6 million Australians aged 15–64 years in the scope of the survey, of whom 2.5 million (18%) were enrolled in a course of study. Approximately 928,800 (37%) of these enrolled persons were attending a higher education institution, 725,900 (29%) were at school, 518,700 (21%) were at Technical and Further Education (TAFE) institutions, and 315,400 (13%) were at other educational institutions. (Table 1)

In May 2007, 53% of persons enrolled in a course of study were females, 43% were aged 15-19 years, and 64% were studying full-time. (Table 1)

### Study leading to a qualification

Approximately 95% (2.4 million) of persons who were enrolled in a course of study, were enrolled in a course leading to a qualification. The proportion of persons aged 15-64 years who were enrolled in a course leading to a qualification increased from 16% in 1997 to 17% in 2007. (Table 2)

More than one in four (28%) persons enrolled in a course leading to a qualification were studying for a Bachelor Degree. Almost half of these persons (46%) were aged 20–24 years and 27% were aged 15-19 years. (Table 3)

Other than Mixed field programmes (31%), which includes persons studying Year 12 or below, the most commonly reported main field of education of current study for persons enrolled in a course leading to a qualification was Management and commerce (17%), followed by Society and culture (13%). (Table 4)

## EDUCATIONAL ATTAINMENT

### Level of highest non-school qualification

The proportion of persons with a non-school qualification increased from 40% in May 1997 to 53% in May 2007. In particular, the proportion of persons attaining a Bachelor Degree or above underwent the greatest relative increase (14% in May 1997 to 21% in May 2007). The proportion of persons whose highest non-school qualification was an Advanced Diploma or below increased from 27% in 1997 to 31% in 2007. (Table 7)

**PROPORTION OF PERSONS WITH A NON-SCHOOL QUALIFICATION, May 1997 to May 2007**



Among the 7.2 million persons with a non-school qualification, the most commonly reported fields of education for the highest non-school qualification were Management and commerce (24%) and Engineering and related technologies (19%). (Table 9)

Of persons with a non-school qualification, 83% were employed, compared to 64% without a non-school qualification. Over three quarters (78%) of employed persons with a non-school qualification were employed full-time, compared to 64% of employed persons without a non-school qualification. (Table 11)

### **Level of highest educational attainment**

Almost one-third (32%) of persons aged 15–64 years reported their level of highest educational attainment as Year 11 or below and 21% reported Year 12. Additionally, more than one in five (21%) had a highest level of attainment of Bachelor Degree or higher and 16% had a Certificate III or IV. (Table 13)

### **STARTING A COURSE OF STUDY**

In May 2007, there were 380,600 persons starting a course of study leading to a qualification, who were not enrolled in such a course in 2006. Of these, 60% were female and 71% were employed, of which 65% were employed full-time. Most of the persons starting a course of study leading to a qualification were aged 15–34 years (233,100 or 61%). (Table 15)

### **LEAVING A COURSE OF STUDY**

In May 2007, there were 942,500 persons leaving a course of study leading to a qualification in which they were enrolled in 2006. Most of the persons leaving a course of study leading to a qualification were employed (84%) and the majority (65%) were aged 15–34 years. (Table 15)

## **About this Release**

Previously Transition from Education to Work, Australia (ISSN: 0729-2902)

Provides selected information on participation in education, highest educational attainment, transition from education to work and current labour force and demographic characteristics for the civilian population aged 15-64 years. Characteristics reported on include: type of educational institution attended or attending; level and main field of education of current study and highest level and main field of educational attainment. Information on unsuccessful enrolment, and deferment of study, is included for persons not studying in the survey year. Data on apprenticeships are also provided. Some of the statistical tables are

presented in time series format.

Data from this and earlier surveys are available on request either as hardcopy, or as an electronic spreadsheet produced on disk or delivered via Internet email. Price on application. For further information, please telephone Canberra (02) 6252 7934.

# Explanatory Notes

## Explanatory Notes

### EXPLANATORY NOTES

#### INTRODUCTION

**1** The statistics in this publication were compiled from data collected in the Survey of Education and Work (SEW) that was conducted throughout Australia in May 2007 as a supplement to the monthly Labour Force Survey (LFS). Respondents to the LFS who were in scope of the supplementary survey were asked further questions.

**2** The SEW provides a range of key indicators relating to the educational participation and attainment of persons aged 15-64 years along with data on people's transition between education and work. The annual time series allows for ongoing monitoring, and provides a link with the more detailed range of educational indicators available from the four-yearly Surveys of Education and Training. Specifically, the supplementary survey provides information on: people presently participating in education; level of highest non-school qualification; characteristics of people's transition between education and work; and data on apprentices.

**3** The publication **Labour Force, Australia** (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the LFS, which also apply to supplementary surveys. It also contains definitions of demographic and labour force characteristics, and information about telephone interviewing relevant to both the LFS and supplementary surveys.

**4** From April 2001, the LFS has been conducted using a redesigned questionnaire containing additional questions and some minor definitional changes. These changes also affect the supplementary surveys. For more details, see **Information Paper: Implementing the Redesigned Labour Force Survey Questionnaire** (cat no. 6295.0) and **Information Paper: Questionnaires Used in the Labour Force Survey** (cat. no. 6232.0)

#### CONCEPTS SOURCES AND METHODS

**5** The conceptual framework used in Australia's LFS aligns closely with the standards and guidelines set out in Resolutions of the International Conference of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling these estimates, are presented in **Labour Statistics: Concepts, Sources and Methods** (cat. no. 6102.0.55.001) which is available

on the ABS web site <[www.abs.gov.au](http://www.abs.gov.au)>.

## SCOPE

**6** The scope of the SEW was restricted to persons aged 15-64 years and excludes the following persons:

- members of the permanent defence forces
- certain diplomatic personnel of overseas governments, customarily excluded from the Census and estimated resident population figures
- overseas residents in Australia
- members of non-Australian defence forces (and their dependants)
- persons permanently unable to work.

**7** Patients in hospitals, residents of homes (e.g. retirement homes, homes for persons with disabilities), boarding school pupils and inmates of prisons are excluded from all supplementary surveys.

**8** Boarding school pupils were excluded from the scope of the SEW since 2005, but were included in earlier collections. The 2004 survey had yielded an estimated 24,100 boarding school pupils aged 15 years and over. Such persons were assumed to be 'not in the labour force' and to be enrolled for secondary school study - 'Year 12 or below'. They were also assumed to be usually resident in the same location (i.e. state and territory and part of state or territory) as their school. The only information collected directly on these persons was age, sex and marital status. All other characteristics were unknown.

**9** This supplementary survey was conducted in both urban and rural areas in all states and territories, but excluded persons living in very remote parts of Australia who would otherwise have been within the scope of the survey. The exclusion of these persons had only a minor impact on any aggregate estimates that are produced for individual states and territories, except the Northern Territory where such persons account for around 23% of the population.

## COVERAGE

**10** The estimates in this publication relate to persons covered by the survey in May 2007. In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling and hence has only one chance of selection in the survey. See **Labour Force, Australia** (cat. no. 6202.0) for more details.

## SAMPLE SIZE

**11** Approximately 95% of selected households were fully responding to the SEW. All persons aged 15-64 in these households were interviewed for the SEW and a total of 45,741 completed interviews were obtained from these households.

## RELIABILITY OF THE ESTIMATES

**12** Estimates in this publication are subject to sampling and non-sampling errors:

- Sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For further details see the Technical Note.
- Non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers, and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers, and efficient processing procedures.

## SEASONAL FACTORS

**13** The estimates are based on information collected in the survey month, and due to seasonal factors they may not be representative of other months of the year.

## CLASSIFICATIONS

### COUNTRY OF BIRTH

**14** Country of birth data are classified according to the Standard Australian Classification of Countries (SACC), 1998 (cat. no. 1269.0).

### INDUSTRY

**15** From 2006, the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (cat. no. 1292.0) replaces the Australian and New Zealand Standard Industrial Classification, 1993 (cat.no. 1292.0). In 2007, industry data in the SEW are classified according to Australian and New Zealand Standard Industrial Classification, 2006. Data classified according to the ANZSIC 1993 are available on request.

**16** ANZSIC 2006 was developed for use in the compilation and analysis of industry statistics in Australia and New Zealand. The ABS and Statistics New Zealand (Statistics NZ) jointly developed this classification to improve the comparability of industry statistics between the two countries and with the rest of the world.

**17** ANZSIC 2006 reflects the outcome of a substantial review of the classification, which included extensive consultation with internal and external users and alignment with the upcoming revision of the **International Standard Industrial Classification of All Economic Activities** (ISIC Rev.4 (draft)). Consequently, it provides a more contemporary and internationally comparable industrial classification system.

### OCCUPATION

**18** From 2006, the **(ANZSCO) Australia and New Zealand Standard Classifications of Occupations, First Edition, 2006** (cat. no. 1220.0) replaces the **Australia Standard Classifications of Occupations (ASCO), Second Edition, 1997** (cat. no. 1220.0). In 2007, occupation data in the SEW are classified according to Australian and New Zealand Standard Classification of Occupations, 2006. Data classified according to the ASCO are available on request.

**19** ANZSCO is the product of a development program undertaken jointly by the ABS, Statistics NZ and the Australian Government Department of Employment and Workplace Relations (DEWR) for use in the collection, publication and analysis of occupation statistics.

**20** ANZSCO is intended to provide an integrated framework for storing, organising and reporting occupation-related information in statistical applications. The use of ANZSCO will result in improved comparability of occupation statistics produced by the two countries.

## **EDUCATION**

**21** In 2001, the **Australian Standard Classification of Education (ASCED)** (cat. no. 1272.0) replaces the **ABS Classification of Qualifications (ABSCQ)** (cat. no. 1262.0). The ASCED is a national standard classification which can be applied to all sectors of the Australian education system including schools, vocational education and training and higher education. ASCED replaces a number of classifications previously used in administrative and statistical systems, including the ABSCQ. The ASCED comprises two classifications: Level of Education and Field of Education.

**22** Level of Education is defined as a function of the quality and quantity of learning involved in an educational activity. There are nine broad levels, 15 narrow levels and 64 detailed levels. For definitions of these levels see the **Australian Standard Classification of Education (ASCED), 2001** (cat. no. 1272.0).

**23** The relationship between categories in the Level of Education classification should be essentially ordinal. In other words, educational activities at Broad Level 1 Postgraduate Degree should be at a higher level than those at Broad Level 2 Graduate Diploma and Graduate Certificate, and so on. However, when this idea is applied to the reality of educational provision in Australia, it is not always possible to assert that an ordinal relationship exists among the various levels of education.

**24** This is particularly evident in the case of the relationship between Certificates I-IV in Broad Level 5 Certificate Level, and School Education included in Broad Level 6 Secondary Education. In this instance, the level of education associated with secondary education may range from satisfying the entry requirements for admission to a university degree course, to the completion of units in basic literacy, numeracy and life skills. Educational activity in these categories may therefore be of an equal, higher or lower level than Certificates found in Broad Level 5 Certificate Level.

**25** Field of Education is defined as the subject matter of an educational activity. Fields of education are related to each other through the similarity of subject matter, through the



broad purpose for which the education is undertaken, and through the theoretical content which underpins the subject matter.

**26** There are 12 broad fields, 71 narrow fields and 356 detailed fields. For definitions of these fields see the **Australian Standard Classification of Education (ASCED), 2001** (cat. no. 1272.0)

## LEVEL OF HIGHEST EDUCATIONAL ATTAINMENT

**27** Level of Highest Educational Attainment can be derived from information on Highest Year of School Completed and Level of Highest Non-school Qualification. The derivation process determines which of the 'non-school' or 'school' attainments will be regarded as the highest. Usually the higher ranking attainment will be self-evident, but in some cases some Secondary Education is regarded, for the purposes of obtaining a single measure, as higher than some Certificate level attainments.

**28** The following decision table is used to determine which of the responses to questions on Highest Year of School Completed (coded to ASCED Broad Level 6) and Level of Highest Non-school Qualification (coded to ASCED Broad Level 5) will be regarded as the highest. It is emphasised that this table was designed for the purpose of obtaining a single value for the output variable Level of Highest Educational Attainment and is not intended to convey any other ordinality.

Decision Table: Level of Highest Educational Attainment ( ASCED level of education codes)							
Highest year of school completed	Level of highest non-school qualification						
	Certificate n.f.d. (500)	Certificate III or IV n.f.d. (510)	Certificate IV (511)	Certificate III (514)	Certificate I or II n.f.d. (520)	Certificate II (521)	Certificate I (524)
Secondary Education n.f.d. (600)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Senior Secondary Education n.f.d. (610)	Senior Secondary n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Senior Secondary n.f.d.	Senior Secondary n.f.d.	Senior Secondary n.f.d.
Year 12 (611)	Year 12	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 12	Year 12	Year 12
Year 11 (613)	Year 11	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 11	Year 11	Year 11
Junior Secondary Education n.f.d. (620)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 10 (621)	Year 10	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 10	Certificate II	Year 10
Year 9 (622)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 8 (623)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 7 (624)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I

**29** The decision table is also used to rank the information provided in a survey about the

qualifications and attainments of a single individual. It does not represent any basis for comparison between differing qualifications. For example, a person whose Highest Year of School Completed was Year 12, and whose Level of Highest Non-school Qualification was a Certificate III, would have those responses crosschecked on the decision table and would as a result have their Level of Highest Educational Attainment output as Certificate III. However, if the same person answered 'Certificate' to the highest non-school qualification question, without offering any further detail, it would be crosschecked against Year 12 on the decision table as 'Certificate not further defined'. The output would then be 'Year 12'. The decision table, therefore, does not necessarily imply that one qualification is 'higher' than the other.

## COMPARABILITY OF TIME SERIES

**30** Revisions are made to population benchmarks for the LFS after each five-yearly Census of Population and Housing. The last such revision was made in February 2004 to take account of the results of the **2001 Census of Population and Housing**. Estimates from supplementary surveys conducted from and including February 2004 are therefore based on revised population benchmarks.

**31** Supplementary surveys are not always conducted on the full LFS sample. Since August 1994 the sample for supplementary surveys has been restricted to no more than seven-eighths of the LFS sample. Since it was introduced, this survey has been conducted on various proportional samples and therefore sampling errors associated with previous supplementary surveys may vary from the sampling error for this survey.

**32** Since 2005, boarding school pupils have been excluded from the scope of the SEW, but were included in earlier collections. For further details, see paragraph 8 of the Explanatory Notes.

**33** Since 2007, industry data in the SEW are classified according to the **Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006** (cat. no. 1292.0). Industry data prior to this were classified according to the **Australian and New Zealand Standard Industrial Classification, 1993** (cat. no. 1292.0). Therefore, industry data from previous SEWs are not directly comparable to 2007 industry data. For further details, see paragraphs 15-17 of the Explanatory Notes.

**34** Since 2007, occupation data in the SEW are classified according to the **(ANZSCO) Australia and New Zealand Standard Classifications of Occupations, First Edition, 2006** (cat. no. 1220.0). Occupation data prior to this were classified according to the **Australia Standard Classifications of Occupations (ASCO), Second Edition, 1997** (cat. no. 1220.0). Therefore, occupation data from previous SEWs are not directly comparable to 2007 occupation data. For further details, see paragraphs 18-20 of the Explanatory Notes.

## COMPARISON WITH OTHER ABS SOURCES

**35** Since the SEW is conducted as a supplement to the LFS, data items collected in the LFS are also available. However, there are some important differences between the two surveys.

The SEW sample is a subset of the LFS sample (see Paragraph 1 of these Explanatory Notes) and the SEW had a response rate of 95% which is lower than the LFS response rate for the same period of 97%. Due to these differences between the samples, the SEW data are weighted as a separate process to the weighting of LFS data. Differences may therefore be found in the estimates collected in the LFS and published as part of the SEW, when compared with estimates published in the May 2007 issue of **Labour Force, Australia** (cat. no. 6202.0).

**36** Additionally, estimates from the SEW may differ from the estimates produced from other ABS collections, for several reasons. The SEW is a sample survey and its results are subject to sampling error. Results may differ from other sample surveys, which are also subject to sampling error. Users should take account of the RSEs on estimates and those of other survey estimates where comparisons are made.

**37** Differences may also exist in the scope and/or coverage of the SEW compared to other surveys. Differences in estimates, when compared to the estimates of other surveys, may result from different reference periods reflecting seasonal variations, non-seasonal events that may have impacted on one period but not another, or because of underlying trends in the phenomena being measured.

**38** Finally, differences can occur as a result of using different collection methodologies. This is often evident in comparisons of similar data items reported from different ABS collections where, after taking account of definition and scope differences and sampling error, residual differences remain. These differences are often the result of the mode of the collections, such as whether data is collected by an interviewer or self-enumerated by the respondent, whether the data is collected from the person themselves or from a proxy respondent, and the level of experience of the interviewers. Differences may also result from the context in which questions are asked, i.e. where in the interview the questions are asked and the nature of preceding questions. The impacts on data of different collection methodologies are difficult to quantify. As a result, every effort is made to minimise such differences.

**39** The following table, **Comparison of Data from SEW to Other ABS Sources**, presents comparisons between a number of key SEW data items and similar data items from other ABS sources. These sources include data collected in the LFS, which was reported in the May 2007 issue of **Labour Force, Australia** (cat. no. 6202.0) and data collected from the Adult Literacy and Life Skills Survey (ALLS), which was reported in the **Adult Literacy and Life Skills Survey, Summary Results, Australia, 2006** (cat. no. 4228.0). The comparison shows SEW data are broadly consistent with other ABS sources.

**Comparison of Data from SEW to other ABS sources**

	Other ABS sources %	SEW May 2007 %
LABOUR FORCE SURVEY - MAY 2007(a)(b)		
Labour force status		
Employed	72.9	74.3
Employed full-time	52.6	53.5
Employed part-time	20.3	20.7
Unemployed	3.3	3.4
Not in the labour force	23.8	22.4
Country of birth		

Born in Australia	72.4	72.7
Born overseas	27.6	27.3
ADULT LITERACY AND LIFE SKILLS SURVEY - JULY 2006, SEPTEMBER 2006 - JANUARY 2007(a)		
Highest year of school completed		
Year 12	49.7	52.2
Year 11	11.6	11.1
Year 10	24.5	25.5
Year 9	7.8	7.0
Year 8 or below	6.3	4.1
No educational attainment/attendance	0.1	0.2
Level of highest non-school qualification		
Postgraduate Degree/Graduate Diploma/Graduate Certificate	6.4	5.9
Advanced Diploma/Diploma	8.8	8.4
Bachelor Degree	14.6	14.9
Certificate III/IV	16.4	15.9
Certificate I/II	7.4	5.2
Certificate n.f.d.	1.6	1.5
Level not determined	1.1	0.7
No educational attainment/attendance	43.8	47.4

(a) Data was restricted to persons aged 15-64 years to align with the scope of the SEW.

(b) Data includes persons living in sparsely settled areas and persons not living in private dwellings who are out of the scope of the SEW.

## CONFIDENTIALISED UNIT RECORD FILE

**40** Confidentialised Unit Record Files (CURF) release confidentialised microdata from surveys, thereby facilitating interrogation and analysis of data. For the **Education and Work** survey, a basic CURF will be available in 2008. For further details, refer to the 2005 **Education and Work** 2005 survey CURF, Information Paper: Survey of Education and Work, Australia -- Confidentialised Unit Record File, May 2005 (cat. no. 6227.0.30.002).

## PREVIOUS SURVEYS

**41** Results of similar surveys have been given in previous issues of this publication. These surveys were conducted annually from February 1964 to February 1974, in May 1975 and 1976, in August 1977 and 1978, and annually in May since 1979. Results of previous surveys were published in:

- Transition to Education and Work, Australia, May 1997 (cat. no. 6227.0)
- Standard data service, Transition from Education to Work, Australia, May 1995 (cat. no. 6227.0.40.001 - available in hardcopy only)
- Education and Work, Australia, May 2006 (cat. no. 6227.0).

## NEXT SURVEY

**42** The ABS intends to conduct this survey again in May 2008.

## ACKNOWLEDGMENT

**43** ABS publications draw extensively on information provided freely by individuals,

businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the **Census and Statistics Act 1905**.

## RELATED PUBLICATIONS

**44** Other publications which may be of interest include:

- **A Directory of Education and Training Statistics** (cat. no. 1136.0)
- **Education and Training Experience, Australia** (cat. no. 6278.0) - issued four-yearly, latest issue 2005 released in May 2006
- **Education and Training Indicators, Australia** (cat. no. 4230.0) - issued irregularly, first issue 2002 released in December 2002
- **Labour Force, Australia** (cat. no. 6202.0) - issued monthly
- **Schools, Australia** (cat. no. 4221.0) - issued annually, latest issue 2006 released in February 2007
- **Information Paper: Measuring Learning in Australia, Dictionary of Standards for Education and Training Statistics** (cat. no. 4232.0.55.001) - issued irregularly, latest issue 2004 released in October 2004
- **Information Paper: Measuring Learning in Australia - Framework for Education and Training Statistics** (cat. no. 4213.0) - released on a single issue basis in January 2003
- **Information Paper: Measuring Learning in Australia - Plan to Improve the Quality, Coverage and Use of Education and Training Statistics** (cat. no. 4231.0) - issued irregularly, first issue 2004 released in September 2004

**45** Current publications and other products released by the ABS are available from the ABS web site <[www.abs.gov.au](http://www.abs.gov.au)>. The ABS also issues a daily Release Advice on the web site that details products to be released in the week ahead. The National Centre for Education and Training theme page also contains a wealth of information and useful references. This site can be accessed through the ABS web site <[www.abs.gov.au](http://www.abs.gov.au)>.

## Glossary

### GLOSSARY

#### Apprentice

An apprentice is a person aged 15-54 years who has entered into a legal contract (called a training agreement or contract of training) with an employer, to serve a period of training for the purpose of attaining tradesperson status in a recognised trade. In this survey, apprentices are identified either by their occupation description or by their answers to a question specifically pertaining to the **Australian Apprenticeship Scheme**.

#### Australian Standard Classification of Education (ASCED)

The ASCED is a national standard classification which includes all sectors of the Australian education system: that is, schools, vocational education and training, and higher education. From 2001, ASCED replaced a number of classifications used in administrative and statistical systems, including the ABSCQ. The ASCED comprises two classifications: Level of Education and Field of Education. See **Australian Standard Classification of Education (ASCED), 2001** (cat. no. 1272.0).

### **Certificate not further defined**

Survey responses are coded to Certificate not further defined (n.f.d.) when there is not enough information to code them to Certificate I, II, III or IV in the **Australian Standard Classification of Education (ASCED), 2001** (cat. no. 1272.0), Level of Education classification.

### **Country of birth**

Country of birth has been classified according to the **Standard Australian Classification of Countries (SACC), 1998** (cat. no. 1269.0).

### **Educational institution**

Any institution whose primary role is education. Included are schools, higher education establishments, colleges of technical and further education, public and private colleges, etc. Excluded are institutions whose primary role is not education, for example, hospitals.

### **Employed**

Persons who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
  - away from work for less than four weeks up to the end of the reference week; or
  - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
  - away from work as a standard work or shift arrangement; or
  - on strike or locked out; or
  - on workers' compensation and expected to return to their job; or
- were employers or own account workers who had a job, business or farm, but were not at work.

### **Employed full-time**

Employed persons who usually worked 35 hours or more a week (in all jobs) and those who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.

### **Employed part-time**

Employed persons who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week.

### **Enrolled**

Refers to persons registered for a course of study in the particular reference period (e.g. survey month, or previous calendar year) at an educational institution (as defined).

### **Field of education**

Field of Education is defined as the subject matter of an educational activity. It is categorised according to the **Australian Standard Classification of Education (ASCED), 2001** (cat. no. 1272.0) Field of Education classification.

### **Field of trade**

Refers to the occupation of an apprentice and is classified according to the **Australian and New Zealand Standard Classification of Occupations (ANZSCO), First Edition, 2006** (cat. no. 1220.0) Unit Group.

### **Higher education institution**

An Australian institution providing higher education courses, e.g. Universities; Colleges of Advanced Education; Institutes of Advanced Education; Institutes of Higher Education; Institutes of Tertiary Education; Agricultural Colleges and some Institutes of Technology.

### **Industry**

From 2006, industry is classified according to the **Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006** (cat. no. 1292.0).

### **Industry sector**

Classification of a respondent's employer as a public or private enterprise. The public sector includes all local government authorities and government departments, Australian defence forces, agencies and authorities created by, or reporting to, the state, territory or

Commonwealth Parliaments. All other employment is classified to the private sector.

## **Leavers**

Persons who were enrolled in a course of study leading to a qualification in the previous year, but were not enrolled in a course of study leading to a qualification at the time of the survey.

## **Level of education**

Level of education is a function of the quality and quantity of learning involved in an educational activity. It is categorised according to the **Australian Standard Classification of Education (ASCED), 2001** (cat. no. 1272.0) Level of Education classification.

## **Level of highest educational attainment**

Level of highest educational attainment identifies the highest achievement a person has attained in any area of study. It is not a measurement of the relative importance of different fields of study but a ranking of qualifications and other educational attainments regardless of the particular area of study or the type of institution in which the study was undertaken. See paragraphs 27-29 of the Explanatory Notes for how highest level is derived.

## **Level not determined**

Level (of highest educational attainment) not determined is used when respondents have given their highest level of school completed and have said they have a non-school qualification but have not supplied a level for the non-school qualification. Their highest level of school completed may well be their highest level of attainment but because the level of their highest non-school qualification is not available, it cannot be determined whether their Year 12, 11 or 10 is their highest level of attainment. Level not determined also includes inadequately described responses or where no responses were given.

## **Non-school qualification**

Non-school qualifications are awarded for educational attainments other than those of pre-primary, primary or secondary education. They include qualifications at the Postgraduate Degree level, Master Degree level, Graduate Diploma and Graduate Certificate level, Bachelor Degree level, Advanced Diploma and Diploma level, and Certificates I, II, III and IV levels. Non-school qualifications may be attained concurrently with school qualifications.

## **Not in the labour force**

Persons who were not in the categories 'employed' or 'unemployed' (as defined).



## **Occupation**

From 2006, occupation is classified according to the **Australian Standard Classification of Occupations, First Edition (ANZSCO), 2006** (cat. no. 1220.0).

## **Other educational institution**

Includes institutions or establishments that offer educational courses such as industry skills centres, professional or industry associations, equipment/product manufacturer or supplier, and instances where insufficient information was available to determine the type of educational institution.

## **Qualification**

Formal certification, issued by a relevant approved body, in recognition that a person has achieved an appropriate level of learning outcomes or competencies relevant to identified individual, professional, industry or community needs. Statements of attainment awarded for partial completion of a course of study at a particular level are excluded.

## **Reference week**

The week preceding the week in which the interview was conducted.

## **School**

For the purposes of this collection is an educational institution whose major activity is the provision of formal classes of primary or secondary education, or the provision of primary or secondary distance education.

## **Starters**

Persons who were enrolled in a course of study leading to a qualification at the time of the survey, but were not enrolled in a course of study leading to a qualification at any time in the previous calendar year.

## **Study leading to a qualification**

The reported level of education of any study being undertaken that will lead to formal certification, issued by a relevant approved body, in recognition that a person has achieved learning outcomes or competencies relevant to identified individual, professional, industry or community needs. In this survey, if the respondent was still attending school their level of study was recorded as their current year of schooling. If the respondent had left school and

was enrolled in study leading to a qualification they were asked the level of the qualification.

## **TAFE**

A Technical and Further Education institution. In Victoria this may also be interpreted as Training and Further Education.

## **Unemployed**

Persons aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

## **Unmet educational demand**

Persons who applied to enrol for a course of study in an educational institution and who were unable to gain placement. Excludes persons who were studying at the time of the survey.

# **Abbreviations**

## **ABBREVIATIONS**

The following symbols and abbreviations are used in this publication:

ABS	Australian Bureau of Statistics
ABSCQ	Australian Bureau of Statistics Classification of Qualifications
ALLS	Adult Literacy and Life Skills Survey
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASCED	Australian Standard Classification of Education
ASCO	Australian Standard Classification of Occupations
CURF	confidentialised unit record file
DEWR	Australian Government Department of Employment and Workplace Relations
ISIC Rev.4 (draft)	International Standard Industrial Classification of All Economic Activities, Revision 4 (United Nations)
LFS	Labour Force Survey
n.f.d.	not further defined
RSE	relative standard error
SE	standard error
SEW	Survey of Education and Work
TAFE	Technical and Further Education

# Populations and Data Items List (Appendix)

## APPENDIX 1 POPULATIONS AND DATA ITEMS LIST

### DATA AVAILABLE ON REQUEST

The ABS has a range of data available on request from the Survey of Education and Work. This section lists the data items and populations which relate to the survey. More detailed breakdowns of some data items may also be available on request. These include Industry, Occupation, Level of education and Field of education.

The population(s) ([footnote 1](#)) for a particular data item refers to those persons in the survey to whom the data item relates. Where alternative output categories are available for the same data item, these are shown and the data item name is followed by a bracketed numeral (e.g. Country of birth(2)).

#### **Population 1:**

Persons aged 15-64 years

#### **Population 2:**

Persons aged 15-64 years who attended an educational institution in 2006

#### **Population 3:**

Persons aged 15-64 years who attended school in 2006

#### **Population 4:**

Persons aged 15-64 years who attended an educational institution other than school in 2006

#### **Population 5:**

Leavers from full-time education (aged 15-64 years) at May 2007

#### **Population 6:**

Persons aged 15-64 years enrolled in a course of study in May 2007

**Population 7:**

Persons aged 15-64 years attending an educational institution other than school in May 2007

**Population 8:**

Persons aged 15-64 years who have a non-school qualification

**Population 9:**

Persons aged 15-24 years who attended school in 2006 but were not attending school in May 2007

**Population 10:**

Employed persons aged 15-54 years who were apprentices in May 2007

**Population 11:**

Persons aged 15-64 years who were not enrolled in a course of study leading to a qualification in 2006 but who were enrolled in a course of study leading to a qualification in May 2007 (Starters)

**Population 12:**

Persons aged 15-64 years who were enrolled in a course of study leading to a qualification in 2006 but who were not enrolled in a course of study leading to a qualification in May 2007 (Leavers)

**Population 13:**

Persons aged 15-64 years who were enrolled in a course of study leading to a qualification in 2006

**Population 14:**

Persons aged 15-64 years who were enrolled in a course of study leading to a qualification in May 2007

**Population 15:**

Employed persons aged 15-64 years

**Population 16:**

Unemployed persons aged 15-64 years

**Population 17:**

Persons in the labour force aged 15-64 years

### A1 DATA ITEMS LIST AND POPULATIONS

Data items		Populations
<b>1 State or territory of usual residence</b>		<b>All</b>
	New South Wales	
	Victoria	
	Queensland	
	South Australia	
	Western Australia	
	Tasmania	
	Northern Territory	
	Australian Capital Territory	
	Australia	
<b>2 Area of usual residence</b>		<b>All</b>
	State capital city	
	Balance of state/Territory	
<b>3 Region of usual residence</b>		<b>All</b>
	Standard labour force dissemination regions	
<b>4 Sex</b>		<b>All</b>
	Males	
	Females	
<b>5 Indigenous status</b>		<b>All</b>
	Not Aboriginal nor Torres Strait Islander	
	Aboriginal	
	Torres Strait Islander	
	Both Aboriginal and Torres Strait Islander	
<b>6 Marital status</b>		<b>All</b>
	Married	
	Not married	
<b>7 Relationship in household</b>		<b>All</b>
	Family member	
	Husband, wife or partner	
	With dependants	
	Without dependants	
	Lone parent	
	With dependants	
	Without dependants	
	Dependant student	
	Non-dependant child	
	Other family person	
	Non-family member	
	Lone person	
	Not living alone	

	Relationship not determined	
<b>8 Country of birth (1)</b>		<b>All</b>
	Born in Australia	
	Born overseas	
<b>9 Country of birth (2)</b>		<b>All</b>
	Born in Australia	
	Born overseas	
	Oceania and Antarctica	
	North-West Europe	
	Southern and Eastern Europe	
	North Africa and the Middle East	
	South-East Asia	
	North-East Asia	
	Southern and Central Asia	
	Americas	
	Sub-Saharan Africa	
	Other	
<b>10 Period of arrival in Australia</b>		<b>All</b>
	Born in Australia	
	Born overseas	
	Arrived before 1986	
	Arrived 1986-1990	
	Arrived 1991-1995	
	Arrived 1996-2000	
	Arrived 2001-2005	
	Arrived 2006-2010	
<b>11 Age group (years)</b>		<b>All</b>
	15-19	
	20-24	
	25-34	
	35-39	
	40-44	
	45-54	
	55-64	
	Note: alternative age groupings available on request	
<b>12 Labour force status</b>		<b>1-9, 11-14</b>
	In the labour force	
	Employed	
		Employed full-time
		Employed part-time
	Unemployed	
		Looking for full-time work
		Looking for part-time work
	Not in the labour force	
<b>13 Status in employment in current job</b>		<b>15</b>
	Employee	
	Other	
<b>14 Occupation</b>		<b>15</b>
	Managers	
	Professionals	
	Technicians and Trades Workers	
	Community and Personal Service Workers	
	Clerical and Administrative Workers	
	Sales Workers	
	Machinery Operators and Drivers	
	Labourers	
<b>15 Occupation of last job</b>		<b>15</b>
	Same as 14 above	
<b>16 Industry</b>		<b>15</b>
	Agriculture, Forestry and Fishing	
	Mining	
	Manufacturing	
	Electricity, Gas, Water and Waste Services	
	Construction	
	Wholesale trade	
	Retail trade	

	Accommodation and Food Services	
	Transport, Postal and Warehousing	
	Information Media and Telecommunications	
	Financial and Insurance Services	
	Rental, Hiring and Real Estate Services	
	Professional, Scientific and Technical Services	
	Administrative and Support Services	
	Public Administration and Safety	
	Education and Training	
	Health Care and Social Assistance	
	Arts and Recreation Services	
	Other Services	
<b>17</b>	<b>Industry of last job</b>	<b>16</b>
	Same as 16 above	
<b>18</b>	<b>Duration of unemployment</b>	<b>16</b>
	Under 2 weeks	
	2 and under 4 weeks	
	4 and under 8 weeks	
	8 and under 13 weeks	
	13 and under 26 weeks	
	26 and under 39 weeks	
	39 and under 52 weeks	
	52 and under 65 weeks	
	65 and under 78 weeks	
	78 and under 91 weeks	
	91 and under 104 weeks	
	104 weeks and over	
<b>19</b>	<b>Whether attended an educational institution and type of attendance in 2006</b>	<b>1</b>
	Attended in 2006	
	Full-time	
	Part-time	
	Did not attend in 2006	
<b>20</b>	<b>Whether attended an educational institution and type of institution attended in 2006</b>	<b>1</b>
	Attended in 2006	
	School	
	Higher education	
	TAFE	
	Business college	
	Industry skills centre	
	Other institution	
	Did not attend in 2006	
<b>21</b>	<b>Whether attended an educational institution and level of education of study in 2006 (ASCED)</b>	<b>1</b>
	Attended in 2006	
	Study leading to a qualification	
	Postgraduate Degree	
	Graduate Diploma/Graduate Certificate	
	Bachelor Degree	
	Advanced Diploma/Diploma	
	Certificate III/IV	
	Certificate I/II	
	Certificate n.f.d.	
	Year 12	
	Year 11	
	Year 10 or below	
	Level not determined	
	Study not leading to a qualification	
	Did not attend in 2006	
<b>22</b>	<b>Main field of education of study in 2006 (ASCED)</b>	<b>2, 4-5, 12-13</b>
	Study leading to a qualification	
	Natural and physical sciences	
	Information technology	
	Engineering and related technologies	
	Architecture and building	
	Agriculture, environmental and related studies	
	Health	

	Education	
	Management and commerce	
	Society and culture	
	Creative arts	
	Food, hospitality and personal services	
	Mixed field programmes	
	Field not determined	
	Study not leading to a qualification	
23	<b>Status of course of study undertaken in 2006</b>	<b>2, 4, 13</b>
	Completed qualification studied for in 2006	
	Identified as highest qualification obtained	
	Identified as not highest qualification obtained	
	Had not completed qualification studied for by May 2007	
	Attending an educational institution other than school in May 2007	
	Not attending in May 2007	
24	<b>Whether attending an educational institution and type of attendance in May 2007 (all study)</b>	<b>1</b>
	Attending in 2007	
	Full-time	
	Part-time	
	Did not attend	
25	<b>Whether attending an educational institution and type of institution attending in May 2007 (all study)</b>	<b>1</b>
	Attending in 2007	
	School	
	Higher education	
	TAFE	
	Business college	
	Industry skills centre	
	Other institution	
	Did not attend	
26	<b>Whether attending an educational institution and level of education of study in May 2007 (ASCED) (study for a qualification)</b>	<b>1</b>
	Attending in May 2007	
	Study leading to a qualification	
	Postgraduate Degree	
	Graduate Diploma/Graduate Certificate	
	Bachelor Degree	
	Advanced Diploma/Diploma	
	Certificate III/IV	
	Certificate I/II	
	Certificate n.f.d.	
	Year 12	
	Year 11	
	Year 10 or below	
	Level not determined	
	Study not leading to a qualification	
	Not attending in May 2007	
27	<b>Main field of education of study in May 2007 (ASCED)</b>	<b>6- 7, 11, 14</b>
	Study leading to a qualification	
	Natural and physical sciences	
	Information technology	
	Engineering and related technologies	
	Architecture and building	
	Agriculture, environmental and related studies	
	Health	
	Education	
	Management and commerce	
	Society and culture	
	Creative arts	
	Food, hospitality and personal services	
	Mixed field programmes	
	Field not determined	
	Study not leading to a qualification	



<b>28 Type of school attending in May 2007</b>		<b>Age 15-24 years</b>
Attending school		
Government		
Non-government		
Catholic		
Other		
Not attending school		
Not attending school		
Not asked		
<b>29 Commencement of apprenticeship</b>		<b>10</b>
Commenced in last 12 months		
Commenced more than 12 months ago		
<b>30 Industry sector</b>		<b>10</b>
Public		
Private		
<b>31 Field of trade</b>		<b>10</b>
Construction		
Electrotechnology and Telecommunications		
Automotive and Engineering		
Food		
Hairdressers		
Other technicians and trades		
Other		
<b>32 Whether applied to enrol in an educational institution in 2007 and type of institution (unmet demand)</b>		<b>1</b>
Enrolled or applied to enrol in a course of study in 2007		
Studying in May 2007		
Gained placement but deferred study		
Higher education		
TAFE		
Other educational institution		
Unable to gain placement on application		
Higher education		
TAFE		
Other educational institution		
Did not apply to enrol in a course of study in 2007		
<b>33 Age at time of leaving full-time education</b>		<b>Age 15-24 years</b>
Attending full-time in May 2007		
Not attending school		
Left at age (in years)		
14 and under		
15-19		
		15
		16
		17
		18
		19
20-24		
		20
		21
		22
		23
		24
Never attended an educational institution full-time		
<b>34 Year last attended an educational institution full-time</b>		<b>Age 15-24 years</b>
Attending full-time in May 2007		
Not attending full-time in May 2007		
Year last attended full-time		
Left before 1997		
Left in 1997		
Left in 1998		
Left in 1999		
Left in 2000		

	Left in 2001	
	Left in 2002	
	Left in 2003	
	Left in 2004	
	Left in 2005	
	Left in 2006	
	Left in 2007	
	Never attended an educational institution full-time	
<b>35 Time of leaving full-time education</b>		<b>5</b>
	January-May 2006	
	June 2006	
	July 2006	
	August-October 2006	
	November 2006	
	December 2006	
	January-May 2007	
<b>36 Main reason left full-time non-school education</b>		<b>5</b>
	Completed course of study	
	Changed to part-time study	
	Employment or financial reasons	
	Family responsibilities, illness, injury, personal reasons	
	Deferred course, lost interest, failed course	
	Course unavailable	
	Other reasons	
<b>37 Type of school last attended</b>		<b>Age 15-24 years</b>
	Attending school	
	Government	
	Non-government	
	Catholic	
	Other	
	Not attending school	
	Never Attended School	
	Not asked (persons aged 15-24 and still at school, and boarding school pupils)	
<b>38 Level of highest educational attainment (ASCED)</b>		<b>All</b>
	Postgraduate Degree	
	Graduate Diploma/Graduate Certificate	
	Bachelor Degree	
	Advanced Diploma/Diploma	
	Certificate III/IV	
	Certificate I/II	
	Certificate n.f.d.	
	Year 12	
	Year 11	
	Year 10 or below	
	Level not determined	
<b>39 Level of highest non-school qualification (ASCED)</b>		<b>1</b>
	With non-school qualification	
	Postgraduate Degree	
	Graduate Diploma/Graduate Certificate	
	Bachelor Degree	
	Advanced Diploma/Diploma	
	Certificate III/IV	
	Certificate I/II	
	Certificate n.f.d.	
	Level not determined	
	Without non-school qualification	
<b>40 Highest year of school completed</b>		<b>All</b>
	Year 12	
	Year 11	
	Year 10	
	Year 9	
	Year 8 or below	
	Never attended school	
<b>41 Main field of highest educational attainment (ASCED)</b>		<b>All</b>

	Natural and physical sciences	
	Information technology	
	Engineering and related technologies	
	Architecture and building	
	Agriculture, environmental and related studies	
	Health	
	Education	
	Management and commerce	
	Society and culture	
	Creative arts	
	Food, hospitality and personal services	
	Mixed field programmes	
	Field not determined	
<b>42</b>	<b>Year completed highest non-school qualification</b>	<b>8</b>
	Before 1981	
	1981-1990	
	1991-2000	
	2001	
	2002	
	2003	
	2004	
	2005	
	2006	
	2007	
<b>43</b>	<b>Number of non-school qualifications obtained</b>	<b>8</b>
	One	
	Two	
	Three or more	
<b>44</b>	<b>Main field of highest non-school qualification (ASCED)</b>	<b>8</b>
	Natural and physical sciences	
	Information technology	
	Engineering and related technologies	
	Architecture and building	
	Agriculture, environmental and related studies	
	Health	
	Education	
	Management and commerce	
	Society and culture	
	Creative arts	
	Food, hospitality and personal services	
	Mixed field programmes	
	Field not determined	

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1 Excludes persons out of scope of the survey. For further details, see paragraphs 6-9 of the Explanatory Notes [<back](#)

## Supplementary surveys (Appendix)

### APPENDIX 2 SUPPLEMENTARY SURVEYS

#### SUPPLEMENTARY SURVEYS

The Monthly Population Survey program collects data on particular aspects of the labour force. The following is an historical list of supplementary surveys to the monthly labour force survey. Data are available from the ABS web site <[www.abs.gov.au](http://www.abs.gov.au)>. Additional data from these surveys is available on request and can be obtained by contacting the ABS.

## A2 MONTHLY POPULATION SURVEY PROGRAM, Supplementary surveys to the LFS

	cat. no.	Frequency	Latest issue
Barriers and Incentives to Labour Force Participation, Australia	6239.0	Biennial	2004-2005
Career Experience, Australia	6254.0	Irregular	November 2002
Career Paths of Persons with Trade Qualifications, Australia	6243.0	Discontinued	Final issue 1993
Child Care, Australia	4402.0	Irregular	June 2005
Education and Work, Australia	6227.0	Annual	May 2006
Employee Earnings, Benefits, and Trade Union Membership, Australia	6310.0	Annual	August 2006
Forms of Employment, Australia	6359.0	Irregular	November 2006
Job Search Experience, Australia	6222.0	Annual	July 2006
Labour Force Experience, Australia	6206.0	Biennial	February 2007
Labour Force Status and Educational Attainment, Australia	6235.0	Discontinued	Final issue 1994
Labour Force Status and Other Characteristics of Families, Australia(a)	6224.0	Discontinued	Final issue 2000
Labour Force Status and Other Characteristics of Migrants, Australia	6250.0	Irregular	November 2004
Labour Mobility, Australia	6209.0	Biennial	February 2006
Locations of Work, Australia	6275.0	Irregular	November 2005
Multiple Jobholding, Australia(b)	6216.0	Irregular	August 1997
Participation in Education, Australia	6272.0	Discontinued	Final issue 1999
Persons Not in the Labour Force, Australia	6220.0	Annual	September 2006
Persons Who had Re-entered the Labour Force, Australia	6264.0.40.001	Discontinued	Final issue 1995
Persons Who Have Left the Labour Force, Australia	6267.0.40.001	Discontinued	Final issue 1994
Retirement and Retirement Intentions, Australia	6238.0	Irregular	2004-2005
Retrenchment and Redundancy, Australia	6266.0	Irregular	July 2001
Successful and Unsuccessful Job Search Experience, Australia	6245.0	Discontinued	Final issue 2000
Superannuation, Australia	6319.0	Discontinued	Final issue 1995
Underemployed Workers, Australia	6265.0	Annual	September 2006
Working Arrangements, Australia	6342.0	Irregular	November 2006
Work-Related Injuries, Australia	6324.0	Irregular	2005-06

(a) Latest data is for June 2005, available only from data cubes on the ABS web site (cat. no. 6224.0.55.001), or on request.

(b) Latest data is July 2001, available on request only.

## Data Cube 2 (I-Note) - Data Cubes

18/07/2008 Note: The additional material data cube released on 15 May 2008 was reissued in order to correct an error in the Relative Standard Errors provided for 2001-2003. Other parts of the publication are not affected.

15/05/2008 Note: This datacube was reissued in order to correct an error in the Proportion of persons for 2005 and formatting of each spreadsheet for printing. Other parts of the publication are not affected.

12/05/2008 Note: The data cube titled "Persons with a qualification at AQF Certificate III level or above, by State/Territory of Residence, Sex and age group. Includes data for 2001-2007" is the first in a series which focus on specific aspects of education and training data, from the Survey of Education and work. It provides data in Excel spreadsheets for Persons with a qualification at AQF Certificate III level or above, by State/Territory of Residence, Sex and age group. Includes data for 2001-2007.

## **Data Cube 3 (I-Note) - Data Cubes**

16/07/2008 Note: This datacube is the second in a series which focus on specific aspects of education and training data, from the Survey of Education and work. It provides data in Excel spreadsheets for Persons engaged in education, training and/or work, by State/Territory of Residence, Sex and Age group. Includes data for 2001-2007.

## **Data Cube 4 (I-Note) - Data Cubes**

16/07/2008 Note: This datacube is the second in a series which focus on specific aspects of education and training data, from the Survey of Education and Work. It provides data in Excel spreadsheets for persons aged 15-24 and engaged in education, training and/or work, by State/Territory of residence, sex and single year of age. Includes data for 2001-2007.

## **Data Cube 5 (I-Note) - Data Cubes**

18/07/2008 Note: This datacube is the fourth in a series which focus on specific aspects of education and training data, from the Survey of Education and Work. It provides data in Excel spreadsheets for persons aged 15-64 who have completed Year 12 or gained a qualification at Certificate II level or above. Information is available by State/Territory of residence, sex and single year of age. Includes data for 2001-2007.

## **Data Cube 6 (I-Note) - Data Cubes**

30/07/2008 Note: This datacube is the sixth in a series which focus on specific aspects of education and training data, from the Survey of Education and Work. It provides data in Excel spreadsheets for persons enrolled in education or training at Certificate III level and above, by State/Territory of Residence, Sex and Age group. Includes data for 2001-2007.

## **Data Cube 7 (I-Note) - Data Cubes**

30/07/2008 Note: This datacube is the fifth in a series which focus on specific aspects of education and training data, from the Survey of Education and Work. It provides data in Excel spreadsheets for persons enrolled in education (all study), by State/Territory of Residence, Sex and Age group. Includes data for 2001-2007.

## **Data quality (Technical Note)**

# TECHNICAL NOTE DATA QUALITY

## RELIABILITY OF THE ESTIMATES

**1** Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate may have varied by chance because only a sample of dwellings was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

**2** Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

$$RSE\% = \left( \frac{SE}{estimate} \right) \times 100$$

**3** RSEs for estimates from 2007 SEW are published for the first time in 'direct' form. Previously a statistical model was produced that related the size of estimates to their corresponding RSEs, and this information was displayed via an 'SE table'. From this point onwards, RSEs for SEW estimates were calculated for each separate estimate and are published. The Jackknife method of variance estimation is used for this process, which involves the calculation of 30 'replicate' estimates based on 30 different subsamples of the original sample. The variability of estimates obtained from these subsamples is used to estimate the sample variability surrounding the main estimate.

**4** Tables 2, 7 and 22 contain estimates collected from previous Education and Work surveys. The spreadsheets associated with this release contain RSEs for these estimates. The RSEs for the years 1997, 1999, 2001 and 2003 were calculated using the previous statistical RSE models, which are available from each relevant issue of **Education and Work, Australia** (cat. no. 6227.0) available on the ABS web site <[www.abs.gov.au](http://www.abs.gov.au)>. For the 2005 and 2006 data, the RSEs were directly calculated. This method differs from that presented in their related publication, which describes the statistical model to calculate RSEs. While the direct method is more accurate, the difference between the two is negligible.

**5** Limited publication space does not allow for the separate indication of the SEs and/or RSEs of all the estimates in this publication, only RSEs for Table 1 are included at the end of these Technical Notes (see Table 1 Relative Standard Errors in the section 'Relative Standard Error'). However, RSEs for all tables are available free-of-charge on the ABS web site <[www.abs.gov.au](http://www.abs.gov.au)>, released in spreadsheet format as an attachment to this publication, **Education and Work, Australia, 2007** (cat. no. 6227.0).

**6** In the tables in this publication, only estimates (numbers, percentages, means and medians) with RSEs less than 25% are considered sufficiently reliable for most purposes. However, estimates with larger RSEs were included and are preceded by an asterisk (e.g.

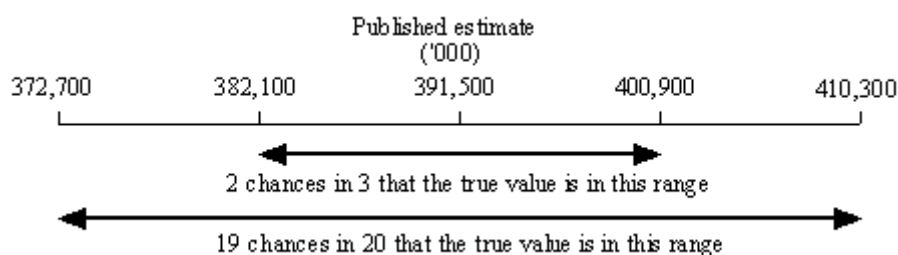
\*3.4) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs greater than 50% are preceded by a double asterisk (e.g. \*\*2.1) to indicate that they are considered too unreliable for general use.

## CALCULATION OF STANDARD ERROR

7 Standard errors can be calculated using the estimates (counts or means) and the corresponding RSEs. For example, Table 1 shows the estimated number of males in New South Wales enrolled in a course of study was 391,500. The RSE Table corresponding to the estimates in Table 1 (see Table 1 Relative Standard Errors in the 'Relative Standard Error' section at the end of these Technical Notes) shows the RSE for this estimate is 2.4%. The SE is calculated by:

$$\begin{aligned}
 &SE \text{ of estimate} \\
 &= \left( \frac{RSE}{100} \right) \times \text{estimate} \\
 &= 0.024 \times 391,500 \\
 &= 9,400 \text{ (rounded to the nearest hundred)}
 \end{aligned}$$

8 Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall within the range 382,100 to 400,900 and about 19 chances in 20 that the value will fall within the range 372,700 to 410,300. This example is illustrated in the diagram below:



## PROPORTION AND PERCENTAGES

9 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y.

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE(x)]^2 + [RSE(y)]^2}$$

10 As an example, using estimates from Table 1, of the 825,100 persons enrolled in a course of study in New South Wales, 391,500 are males, or 47.4%. The RSE for 391,500 is 2.4% and the RSE for 825,100 is 1.6% (see Table 1 Relative Standard Errors in the section 'Relative Standard Error' at the end of these Technical Notes). Applying the above formula, the RSE for the proportion of males in New South Wales enrolled in a course of study:

$$RSE = \sqrt{(2.4)^2 - (1.6)^2} = 1.8\%$$

**11** Therefore, the SE for the proportion of males in New South Wales enrolled in a course of study is 0.9 percentage points  $(= (1.8/100) \times 47.4)$ . Hence, there are about two chances in three that the proportion of males in New South Wales enrolled in a course of study is between 46.5% and 48.3%, and 19 chances in 20 that the proportion is between 45.6% and 49.2%.

## DIFFERENCES

**12** Published estimates may also be used to calculate the difference between two survey estimates (of numbers or percentages). Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates  $(x-y)$  may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

**13** While this formula will only be exact for differences between separate and uncorrelated characteristics or subpopulations, it is expected to provide a good approximation for all differences likely to be of interest in this publication.

## SIGNIFICANCE TESTING

**14** The statistical significance test for any of the comparisons between estimates was performed to determine whether it is likely that there is a difference between the corresponding population characteristics. The standard error of the difference between two corresponding estimates  $(x$  and  $y)$  can be calculated using the formula in paragraph 12. This standard error is then used to calculate the following test statistic:

$$\left( \frac{x-y}{SE(x-y)} \right)$$

**15** If the value of this test statistic is greater than 1.96 then there is good evidence of a real difference in the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a real difference between the populations.

**16** The imprecision due to sampling variability, which is measured by the SE, should not be confused with inaccuracies that may occur because of imperfections in reporting by respondents and recording by interviewers, and errors made in coding and processing data. Inaccuracies of this kind are referred to as non-sampling error, and they occur in any enumeration, whether it be a full count or sample. Every effort is made to reduce non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers, and efficient operating procedures.



## RELATIVE STANDARD ERROR

17 Relative Standard Errors for Table 1 are included below. However, RSEs for all tables are available free-of-charge on the ABS web site <[www.abs.gov.au](http://www.abs.gov.au)>, released in spreadsheet format as an attachment to this publication, **Education and Work, Australia, 2007** (cat. no. 6227.0).

**TABLE 1 RELATIVE STANDARD ERRORS, Persons enrolled in a course of study - Selected characteristics**

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
RSE OF ESTIMATE (%)									
Sex									
Males	2.4	2.5	4.3	4.7	4.1	5.3	23.0	11.0	1.4
Females	2.7	2.3	2.0	3.3	4.0	5.4	16.7	5.7	1.3
Age group (years)									
15-19	2.3	1.9	2.5	3.0	2.3	3.2	21.9	5.8	1.2
20-24	4.2	5.0	6.7	6.6	8.4	11.1	30.9	8.0	2.1
25-34	5.0	5.6	5.6	9.4	9.4	10.0	23.1	18.9	2.5
35-44	8.1	8.6	8.2	8.3	9.2	13.4	31.7	11.5	4.4
45-54	8.1	11.5	10.6	16.4	12.9	17.6	34.7	13.6	4.2
55-64	15.2	11.5	16.2	17.9	21.1	13.9	55.2	26.6	6.6
Country of birth									
Born in Australia	2.6	2.5	2.5	3.6	2.9	4.0	16.9	4.8	1.6
Born overseas	6.6	7.5	9.0	10.2	8.8	16.2	25.4	28.5	3.8
Area of usual residence									
State capital city	1.9	2.5	3.0	3.2	3.0	5.7	..	..	1.2
Balance of state/Territory	3.5	4.7	3.0	7.1	7.0	4.6	15.0	7.3	2.2
Labour force status									
In the labour force	2.6	2.8	2.7	3.9	3.3	5.3	15.0	4.9	1.4
Employed	2.7	2.8	2.6	3.9	3.2	5.7	14.7	5.1	1.4
Employed full-time	3.1	5.0	4.4	6.9	6.2	8.9	18.4	10.0	2.2
Employed part-time	5.4	3.3	4.1	5.6	4.4	8.7	18.9	6.3	2.0
Unemployed	7.8	13.0	15.8	19.5	17.7	27.0	81.9	26.0	6.3
Not in the labour force	4.7	4.3	4.6	5.8	7.5	7.4	26.7	23.6	2.2
Level of education of current study in May 2007									
Study leading to a qualification	1.7	2.1	2.4	2.9	3.1	4.0	16.6	7.8	1.0
Postgraduate Degree	10.5	9.3	11.9	18.2	19.2	24.2	47.0	25.3	5.2
Graduate Diploma/Graduate Certificate	15.8	16.6	14.3	18.1	15.2	44.1	63.2	21.7	8.0
Bachelor Degree	7.2	4.7	5.6	6.6	7.3	11.9	30.1	17.0	3.4
Advanced Diploma/Diploma	8.6	7.9	7.6	10.5	12.4	18.5	36.7	13.8	3.6
Certificate III/IV	6.1	6.6	6.5	9.8	7.3	11.7	30.3	15.7	3.0
Certificate I/II	20.2	16.1	15.8	21.3	18.0	29.1	102.4	36.8	8.4
Certificate n.f.d.	11.4	15.6	10.4	18.2	17.1	28.8	47.7	24.9	7.4
Year 12	4.9	6.0	7.2	7.0	7.9	12.1	35.3	11.3	2.8
Year 11	6.1	4.8	4.6	8.1	7.0	9.4	34.1	13.2	2.9
Year 10 or below	5.2	3.8	8.7	7.2	13.0	7.3	31.0	13.6	2.9
Level not determined	15.8	17.8	49.2	37.9	25.9	60.6	101.7	51.7	9.7
Study not leading to a qualification	9.3	16.0	16.4	13.9	17.0	18.6	29.9	30.5	7.3
Type of educational institution attending									
School	2.0	2.2	3.5	3.4	3.8	3.7	21.1	5.7	1.1
TAFE	4.6	6.4	5.6	7.9	5.6	9.5	44.5	12.5	2.9
Higher education	5.2	4.7	5.0	5.3	8.0	9.5	20.2	16.7	2.7
Other institution	7.4	6.6	6.2	12.6	9.5	10.8	27.2	15.1	4.4
Type of attendance									
Full-time	2.4	2.2	3.3	4.0	4.6	4.7	18.2	11.8	1.2
Part-time	3.0	4.0	3.9	5.5	5.7	6.2	15.7	9.2	2.0

<b>Total</b>	<b>1.6</b>	<b>1.9</b>	<b>2.2</b>	<b>2.9</b>	<b>2.8</b>	<b>3.6</b>	<b>15.0</b>	<b>7.3</b>	<b>1.0</b>
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.. not applicable  
(a) Refers to mainly urban areas only. For more information see paragraph 9 of the Explanatory Notes.

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